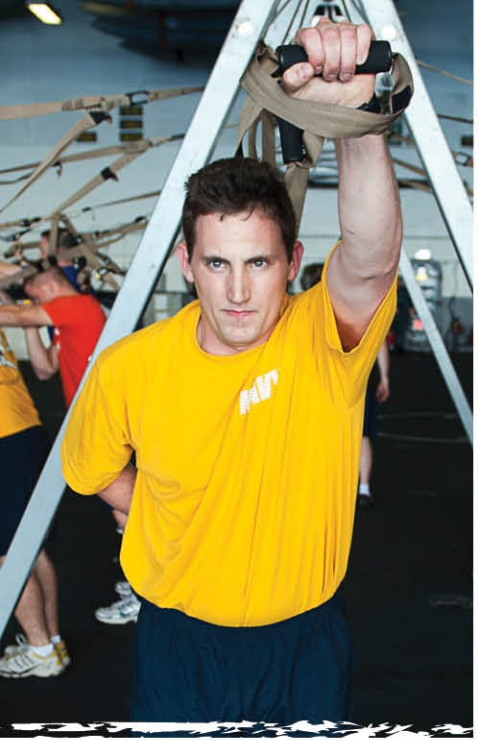


Updates to the Armed Forces Reportable Medical Events Guidelines and Navy DRSi

Navy and Marine Corps Public Health Center

7 June 2012

WWW.NMCPHC.MED.NAVY.MIL

Background

- Medical Event Reporting according to the Armed Forces Guidelines is required per BUMED INST 6220.12C
- NDRSi disease screens ask specific questions as prescribed by these Armed Forces Guidelines and Navy Medicine priorities
- This presentation outlines updates to the Armed Forces Guidelines and, subsequently, to DRSi disease screens
- The new Armed Forces Guidelines can be found at: http://www.nmcphc.med.navy.mil/downloads/prevmed/ArmedForcesGuidlines14Mar12.pdf

- Changes to DRSi disease screens will be applied to DRSi by 1 July 2012

Outline of Updates

- As much as possible, aligned military case definitions with CDC and CSTE
- Other additional minor updates were made to specific diagnoses
- Changed focus to reporting of event, not ICD-9 code
- Major Updates: Influenza, Heat Illness, Outbreak/Cluster, Hepatitis B, Hepatitis C

Case Definitions Changed to match CDC/CSTE*

- Anthrax
- Botulism
- Brucellosis
- Cryptosporidiosis
- Cyclospora Infection
- Dengue Fever
- Diphtheria
- E. coli, Shiga Toxin Producing
- Ehrlichiosis/Anaplasmosis
- Giardiasis
- Gonorrhea
- Haemophilus Influenzae
- Hemorrhagic Fever
- Legionellosis
- Leptospirosis
- Lyme Disease
- Malaria
- Measles
- Mumps
- Pertussis
- Poliomyelitis
- Rubella
- Salmonella
- SARS
- Shigellosis
- Syphilis
- Tetanus
- Toxic Shock Syndrome
- Tularemia
- Typhoid Fever
- Varicella
- Yellow Fever

* Refer to BACKUP slides for detailed information on specific changes by disease

Other Minor Case Definition Updates*

- These include updates to the clinical description or required comments sections

- Amebiasis
- Campylobacter Infection
- Chlamydia Trachomatis
- Cholera
- Coccidiooidomycosis
- Encephalitis, Arboviral
- Filariasis
- Hantavirus Disease
- Hepatitis A
- Rabies
- Rocky Mountain Spotted Fever
- Tuberculosis

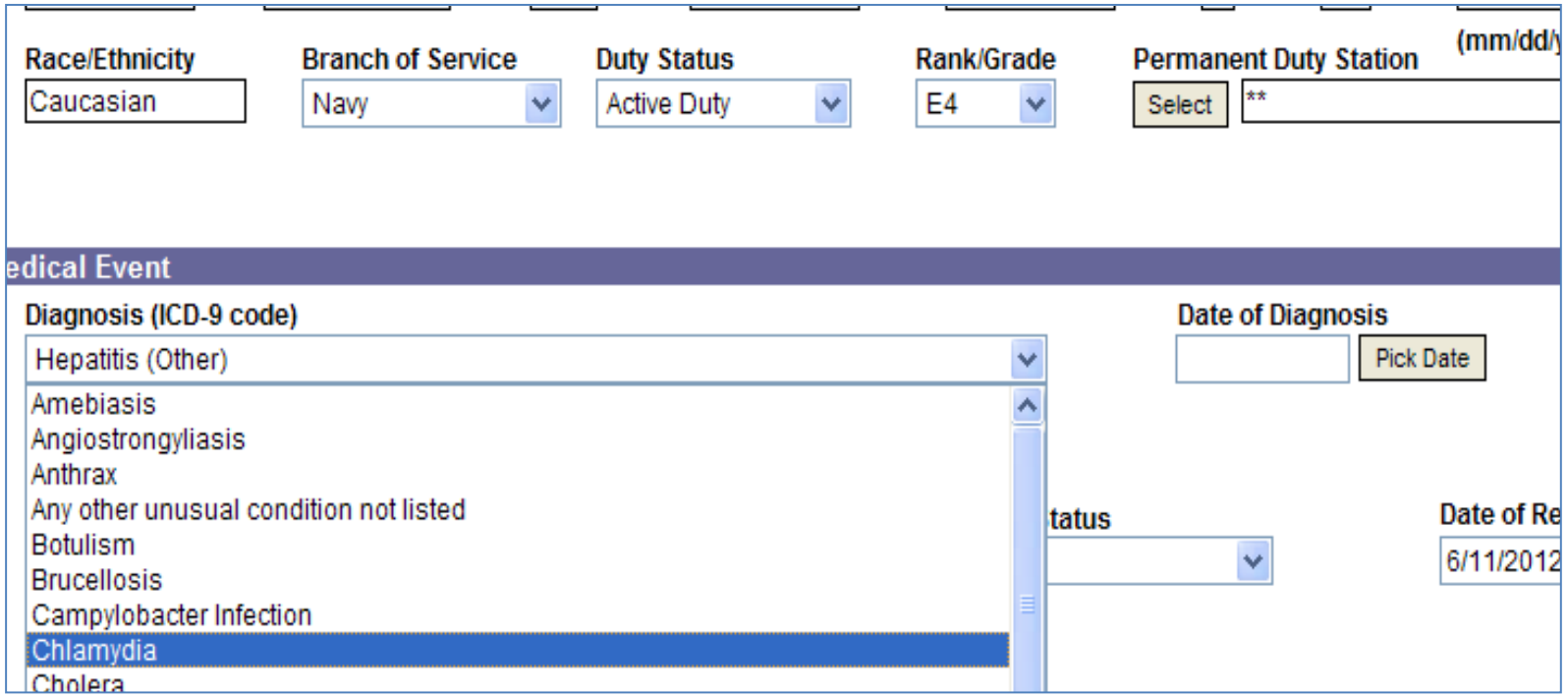
* Refer to BACKUP slides for detailed information on specific changes by disease

Focus on Disease/Event, Not ICD-9 Code

- A reportable public health event can be different from an ICD-9 coded event
  - Providers may simply treat some diseases without lab confirmation yet still ICD-9 code the event as the disease
  - These events MAY NOT be reportable; refer to the Armed Forces guidelines and Case Definitions to determine if the event is reportable
- Updated Guidelines:
  - Removed ICD-9 codes from each case definition
  - Maintained list of commonly used ICD-9 codes to assist in case finding locally

Focus on Disease/Event, Not ICD-9 Code

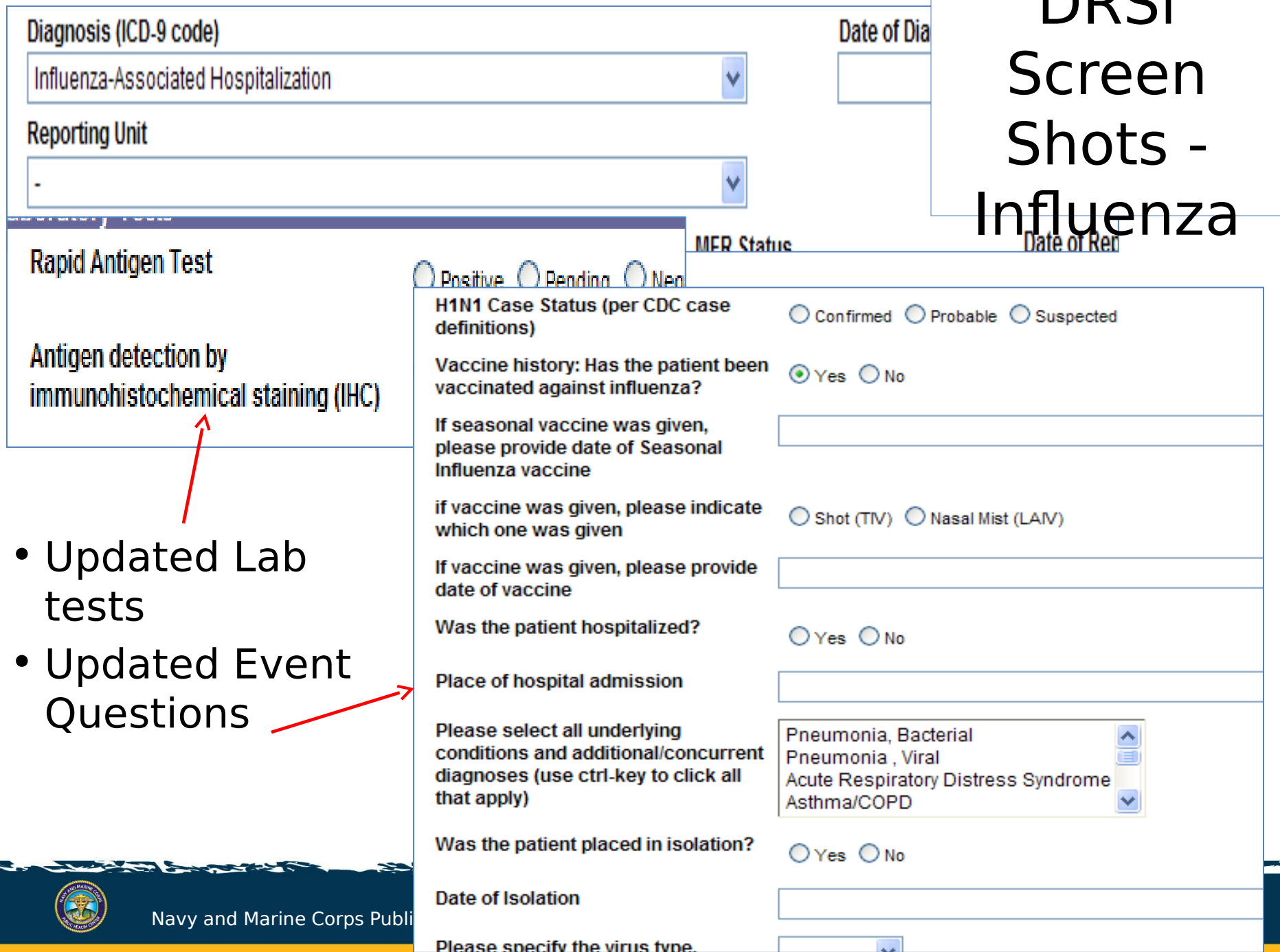
- ICD-9 Codes are now not attached to diagnosis in DRSi



New Case Definition: Influenza-Associated Hospitalization

- Heading changed from “Influenza” to “Influenza-Associated Hospitalization”
- New Definition:
  - Focused on hospitalized cases ONLY, under 65 years of age, with laboratory confirmation (obtained within 4 days of hospital admission)
  - Probable cases now reportable with positive rapid antigen test
- Refer to back-up slides for more specific information

DRSi Screen Shots - Influenza

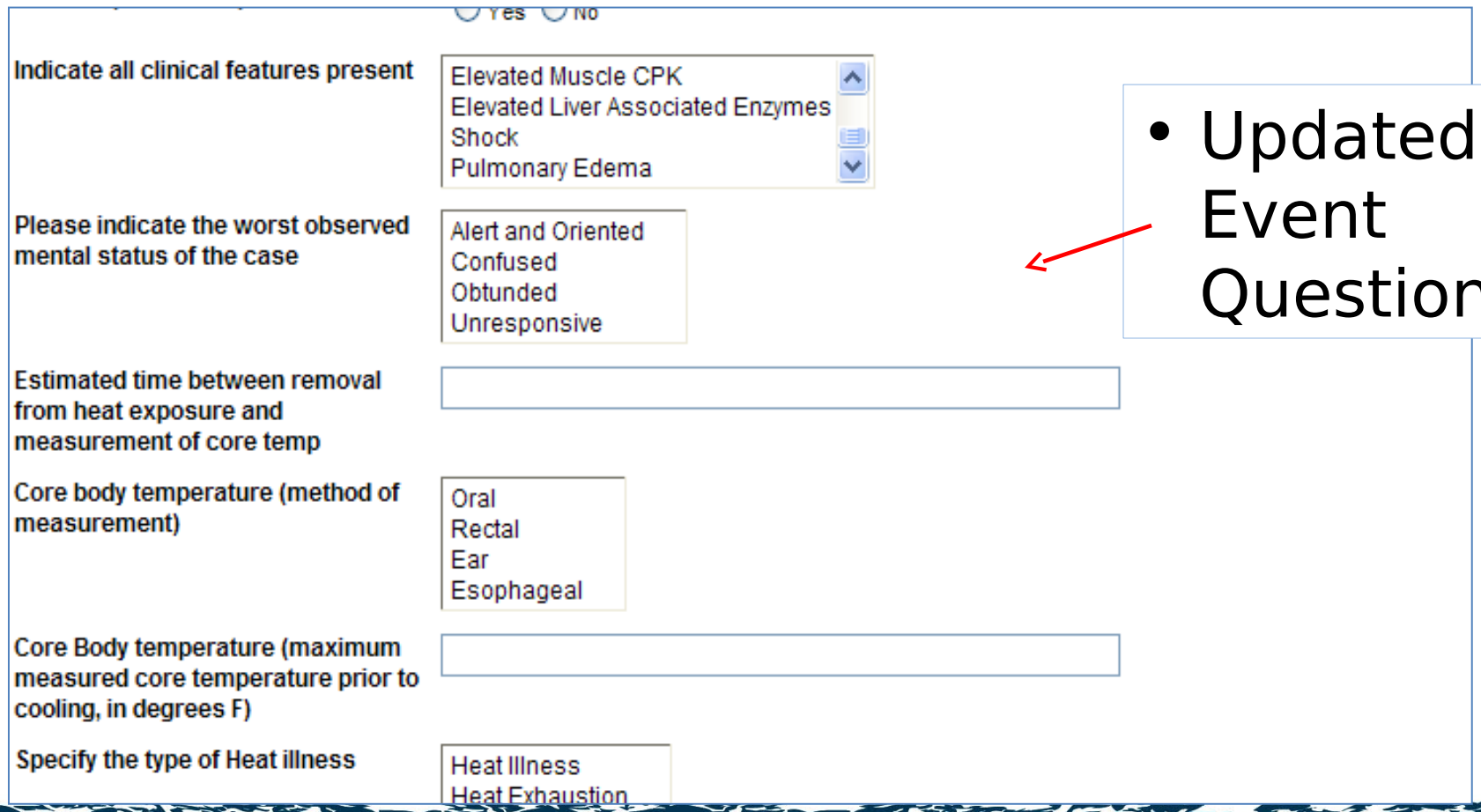


- Updated Lab tests
- Updated Event Questions

New Case Definition: Heat Illness

- Heading changed from “Heat Injury” to “Heat Illness”
- New Definition:
  - More practical to implement; reduce confusion on what is reportable
  - Now includes heat exhaustion (HE)
  - Report as Heat Illness, not necessary to differentiate between HE, heat injury (HI) or heat stroke (HS)
  - A case is reportable ONLY WHEN given a limited duty profile and if specifically diagnosed as HE, HI, HS by a provider
  - Report specific individual case circumstances (like clinical symptoms)
- Refer to back-up slides for more specific information

DRSi Screen Shots - Heat



- Updated Event Questions

New Case Definition: Disease Cluster or Outbreak

- Heading changed from “Outbreak” to “Disease Cluster or Outbreak”
- New Definition:
  - All clusters of disease investigated are reportable, regardless of lab confirmation
  - If a cluster leads you to seek more cases, investigate illness cause, and/or implement control measures THEN REPORT
- Refer to back-up slides for more specific information

New Case Definition: Hepatitis B, Acute and Chronic

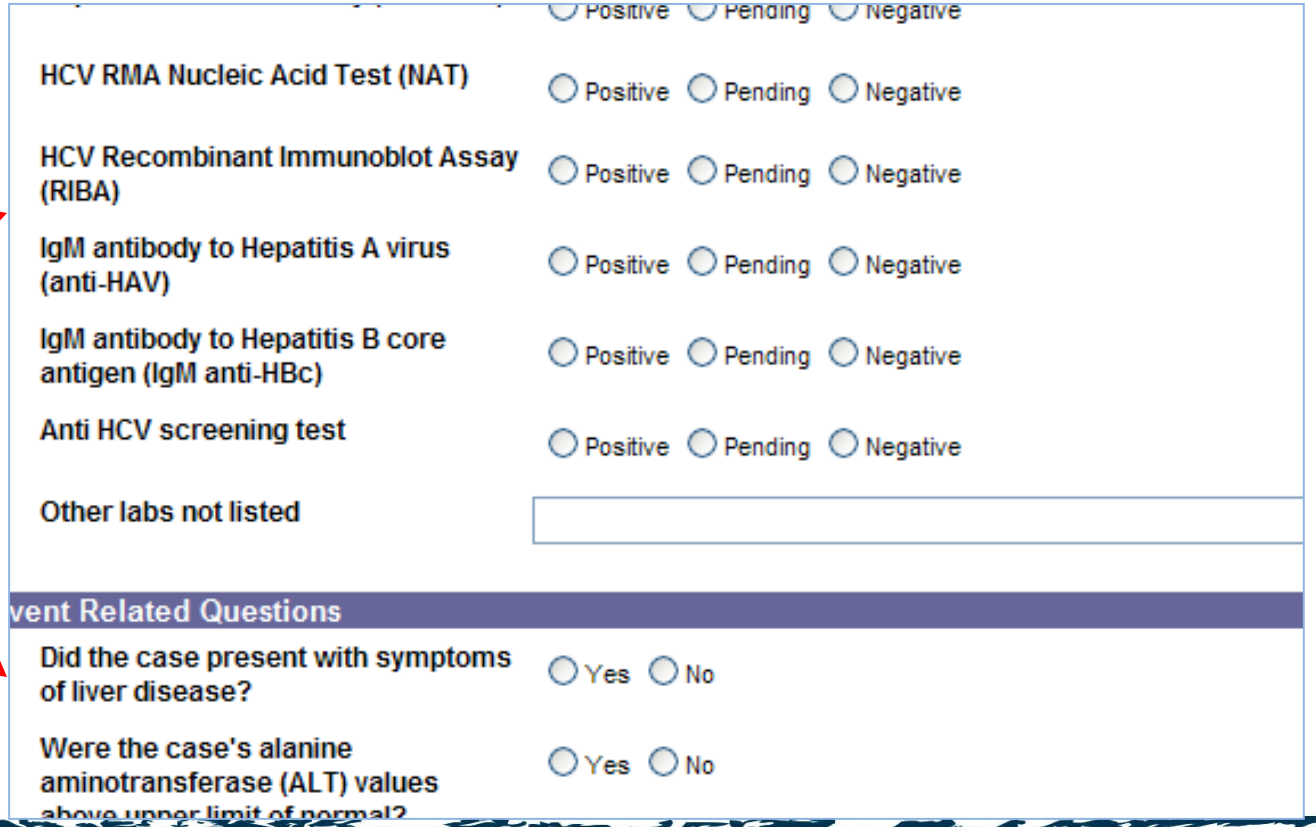
- Heading changed from “Hepatitis B, Acute” to “Hepatitis B, Acute and Chronic”
- New Definition:
  - Both acute and chronic Hepatitis B are now reportable
  - Resolved acute Hepatitis B (where lab tests indicative of immunity are positive) are NOT reportable
- Refer to back-up slides for more specific information
- No significant DRSi disease screen update

New Case Definition: Hepatitis C

- Heading changed from “Hepatitis C, Acute” to “Hepatitis C”
- New Definition:
  - No need to distinguish between acute and chronic Hepatitis C, both are now reportable
  - Probable cases now reportable with positive Anti-HCV screening test and no confirmatory test result
- Refer to back-up slides for more specific information

DRSi Screen Shots – Hepatitis C

- Updated Lab tests
- Updated Event Questions


Positive Pending Negative
HCV RMA Nucleic Acid Test (NAT)
Positive Pending Negative
HCV Recombinant Immunoblot Assay (RIBA)
Positive Pending Negative
IgM antibody to Hepatitis A virus (anti-HAV)
Positive Pending Negative
IgM antibody to Hepatitis B core antigen (IgM anti-HBc)
Positive Pending Negative
Anti HCV screening test
Positive Pending Negative
Other labs not listed
vent Related Questions
Did the case present with symptoms of liver disease?
Yes No
Were the case's alanine aminotransferase (ALT) values
Yes No

Summary

- Make sure you are familiar with the new Armed Forces Guidelines posted at http://www.nmcphc.med.navy.mil/downloads/prevmed/ArmedForcesGuidlines14Mar12.pdf

- Updates to case definitions now align with CDC/CSTE and focus on the diagnosis rather than the ICD-9 code
- Influenza, Heat Illness, Outbreak/Cluster, Hepatitis B and Hepatitis C have had major case definition updates
- DRSi disease screens will be updated to reflect these new case definitions

Questions

- Contact your cognizant NEPMU
  - NEPMU2:
    - COMM: (757) 950-6600; DSN: (312) 377-6600
    - Email: NEPMU2NorfolkThreatAssessment@med.navy.mil
  - NEPMU5:
    - COMM: (619) 556-7070; DSN (312) 526-7070
    - Email: ThreatAssessment@med.navy.mil
  - NEPMU6:
    - COMM: (808) 471-0237; DSN: (315) 471-0237
    - Email: NEPMU6ThreatAssessment@med.navy.mil
- For DRSi questions, call:
  - NMCPHC DRSi Helpdesk
  - Comm: 757-953-0954; DSN: 312-377-0954
  - Email: Tracey.Thomas.ctr@med.navy.mil

BACKUP SLIDES

References

- Armed Forces Reportable Medical Events Case Definitions and Guidelines – http://www.nmcphc.med.navy.mil/downloads/prevmed/ArmedForcesGuidlines14Mar12.pdf
- BUMED INST 6220.12C - http://www.med.navy.mil/directives/ExternalDirectives/6220.12C.pdf
- CDC = Centers for Disease Control and Prevention
- CSTE = Council of State and Territorial Epidemiologists

Minor Changes in Case Definitions – What actually changed?

1. **Amebiasis**
   - Updated clinical description to include "dysentery (i.e., severe and sudden onset diarrhea containing mucus and/or blood in the stool)"
   - Removed “or” from laboratory criteria
2. **Anthrax**
   - Updated lab criteria
   - Added suspect & probable case classifications
3. **Botulism**
   - Updated clinical description
   - Added case classifications of probable and confirmed in addition to tracking type of botulism (i.e. Foodborne, Infant,
4. **Brucellosis**
   - Updated lab criteria to include a presumptive diagnosis
5. **Campylobacter Infection**
   - Defined medical terms in clinical description
6. **Chlamydia Trachomatis**
   - Defined medical terms in clinical description
7. **Cholera**
   - Added “O139 from stool or vomitus” to lab criteria
8. **Coccidioidomycosis**
   - Moved additional considerations up to required comments

Minor Changes in Case Definitions – What actually changed?

9. **Cryptosporidiosis**
   - Added a probable case classification
   - Added additional considerations
10. **Cyclospora Infection**
   - Added a probable case classification
11. **Dengue Fever**
   - Updated lab criteria to include presumptive/probable
   - Added a suspected case classification
12. **Diphtheria**
   - Added a probable case classification
   - Moved additional considerations to required

13. **E. coli, Shiga Toxin Producing**
   - Updated clinical description
   - Added suspected case classification
   - Added to additional considerations section
14. **Ehrlichiosis/Anaplasmosis**
   - Added to lab criteria for Ehrlichia chaffeensis and Anaplasma phagocytophilum
   - Added a suspected case classification
15. **Encephalitis, Arboviral**
   - Added Japanese encephalitis and updated clinical description
16. **Filariasis**
   - Updated clinical description

Minor Changes in Case Definitions – What actually changed?

17. Giardiasis
- Updated lab criteria
- Added a probable case classification
- Added to additional considerations

18. Gonorrhea
- Added a probable case classification

19. Hantavirus Disease
- Updated clinical description

20. Haemophilus Influenzae
- Added a probable case classification

21. Hemorrhagic Fever
- Updated lab criteria
- Added additional considerations

23. Legionellosis
- Updated lab criteria for suspected and confirmed cases
- Updated required comments

24. Leptospirosis
- Added a probable case classification

25. Lyme Disease
- Updated lab criteria
- Added suspected and probable case classifications
- Moved additional considerations to required comments

26. Malaria
- Updated lab criteria
- Added a suspected case classification

Minor Changes in Case Definitions – What actually changed?

27. Measles
- Updated lab criteria
- Added suspected and probable case classifications
- Added new additional considerations

28. Mumps
- Added suspected and probable case classifications
- Moved additional considerations to required comments

29. Pertussis
- Added a probable case classification

30. Poliomyelitis
- Added a "non-Paralytic" confirmed case classification

31. Rabies
- History of an animal bite is now a required comment

32. Rocky Mountain Spotted Fever
- Moved additional considerations up to required comments

33. Rubella
- Added suspected and probable case classifications

34. Salmonellosis
- Added a probable case classification
- Added additional considerations

35. Severe Acute Respiratory Syndrome (SARS)
- Added exclusion criteria to case classification

36. Shigellosis
- Added a probable case classification
- Added additional considerations

Minor Changes in Case Definitions – What actually changed?

37. Tetanus

- Added a probable case classification

38. Toxic Shock Syndrome

- Updated lab criteria to include "TSS"
- Added a probable case classification for TSS and STSS

39. Tuberculosis

- Additional considerations added regarding 12-month period

40. Tularemia

- Updated laboratory criteria to include presumptive and confirmatory results
- Added a probable case

41. Typhoid Fever

- Added a probable case classification

42. Varicella

- Added a probable case classification

43. Yellow Fever

- Added a probable case classification

New Case Definition: Influenza-Associated Hospitalization

- *Heading:* Changed from Influenza to Influenza-Associated Hospitalization.
- *Clinical Description:* Hospitalization now required
  - An acute viral disease of the respiratory tract characterized by fever, HA, myalgia, prostration, rhinitis, sore throat, and cough ***requiring hospitalization***.
- *Clinical Case Definition:* Adds age requirement and laboratory requirement
  - An illness compatible with influenza virus infection (fever ≥100.5°F accompanied by cough or sore throat in the absence of other diagnoses) in individuals **< 65 years of age** that results in hospitalization, AND
  - **Laboratory test confirmation or positive rapid test result supporting influenza diagnosis obtained less than 4 days after hospital admission (to minimize the reporting of nosocomial [hospital acquired] rather than community acquired infections).**

New Case Definition: Influenza-Associated Hospitalization

- *Laboratory Criteria for Diagnosis:* Added probable criteria; confirmed criteria remains unchanged
  - ***Probable***
    - **Commercial influenza diagnostic rapid antigen test (RAT) of respiratory specimens.**
  - *Confirmed*
    - Detection of influenza-specific RNA by RT-PCR testing of respiratory specimens;
    - Influenza virus isolation in tissue cell culture from respiratory specimens;
    - Direct antigen detection by immunofluorescent antibody (IFA) staining (direct or indirect) of respiratory specimens;
    - Antigen detection by immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract or other tissue from biopsy or autopsy specimens; or
    - Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera.

New Case Definition: Influenza-Associated Hospitalization

- *Case Classification:* probable classification added; hospitalization added to confirmed classification; note added
  - ***Probable*:**
    - **A hospitalization for acute illness associated with a diagnosis of influenza with a positive result from a rapid antigen test (RAT). A confirmatory test should be ordered following a positive RAT.**
  - *Confirmed*:
    - A **hospitalization** for acute illness associated with a diagnosis of influenza and confirmed by an appropriate laboratory test as defined above.
  - **Note:**
    - ***For all confirmed cases a nasal wash specimen should be submitted to an appropriate laboratory for further influenza laboratory testing (i.e., gene sequencing).***

New Case Definition: Influenza-Associated Hospitalization

- *Required Comments:* one comment expanded; two added
  - Include the patient's influenza immunization **for the current or most recent influenza season. Include date received and type of vaccine TIV (shot) or LAIV (nasal mist).**
  - **Include virus type (A or B) and subtype (e.g., H1N1) if available**
  - **Include the type of lab test that was positive (PCR, culture, IFA, IHC tissue, HI titer, or RAT).**

New Case Definition: Heat Illness

- Heading changed from “Heat Injury” to “Heat Illness”
- Clinical Description:
  - Includes heat exhaustion(HE) as well as heat injury (HI) and heat stroke (HS)
  - Distinguishing between HE and HI is difficult and no longer necessary when reporting
- Case Classification:
  - *Confirmed:* A case given a limited duty profile and diagnosed with HE, HI, or HS

New Case Definition: Heat Illness

- Required Comments are specific and meaningful
  - If exposure was duty related
  - Precipitating activity
  - Weather or WBGT, Max core temp, method of temp measurement
  - Time between heat exposure and temp measurement
  - Mental status (worst observed)
  - Clinical features (i.e. shock, impaired renal function)
  - If case was hospitalized

New Case Definition: Heat Illness

- Additional Considerations:
  - medication/supplement use

New Case Definition: Disease Cluster or Outbreak

- Heading changed from “Outbreak” to “Disease Cluster or Outbreak”
- Description:
  - More simplified
  - No minimum number of cases
  - Etiology identification not required
- Laboratory Criteria for Diagnosis:
  - More information
  - Encourage lab testing – human or environment
  - Laboratory testing NOT REQUIRED for reporting

New Case Definition: Disease Cluster or Outbreak

- Case Classification:
  - Provides specific decision support info to guide whether a report should be filed
  - Report an outbreak when an increase in illness leads you to:
    - Identify more cases
    - Seek causes of the illness and/or
    - Institute control measures
  - When in doubt report

New Case Definition: Disease Cluster or Outbreak

- Required Comments: no change from previous guidelines
- Additional considerations:
  - Not all outbreaks require a separate MER for each individual case. Check with your Surveillance Hub for guidance.
  - Laboratory confirmation is not required for reporting
  - Outbreaks are reportable regardless of whether the etiologic agent is on the reportable disease list
    - i.e. adenovirus outbreak

New Case Definition: Hepatitis B, Acute and Chronic

- *Heading*: changed from Hepatitis B, Acute to Hepatitis B, Acute and Chronic.

- *Clinical Description:* expanded to describe both acute and chronic hepatitis B and explain the transition from acute to chronic.

New Case Definition: Hepatitis B, Acute and Chronic

- *Clinical Case Definition:* Added to the new guidelines
  - ***Acute Illness:*** **This refers to newly acquired infections. Affected individuals may notice symptoms in 1 to 4 months after exposure to the virus. Most people will have resolution of illness in a few weeks to months and will then be cured of disease and become immune to hepatitis B. However, only a small proportion of acute hepatitis B infections may be clinically recognized. If the infection does not resolve, it will then proceed to chronic hepatitis B.**

  - ***Chronic Illness:*** **Occurs if acute illness does not resolve. Resolution is marked by the conversion of HBsAg to anti-HBs. The persistence of HBsAg for more than six months implies chronic infection. Persons with chronic HBV infection may have no evidence of liver disease or may have a spectrum of disease ranging from mild cirrhosis to liver failure or hepatocellular carcinoma.**

New Case Definition: Hepatitis B, Acute and Chronic

- *Laboratory Criteria for Diagnosis:* Minor changes to acute criteria, chronic criteria added.
  - *Acute Hepatitis B: (Any of the following)*
    - IgM antibody to hepatitis B core antigen (IgM anti-HBc) positive, or
    - Hepatitis B surface antigen (HBsAg) positive **AND chronic illness has been ruled out.**
  - ***Chronic Hepatitis B: (Any of the following)***
    - **Negative for IgM antibodies to hepatitis B core antigen (IgM anti-HBc) AND a positive result on one of the following tests: hepatitis B surface antigen (HBsAg), hepatitis B e antigen (HBeAg), or hepatitis B virus (HBV) DNA, or**
    - **HBsAg positive or HBeAg positive or HBV DNA positive two times at least six months apart.**

New Case Definition: Hepatitis B, Acute and Chronic

- *Case Classification:* Minor changes to acute case classification, chronic case classification added
  - *Acute Hepatitis B, Confirmed:* A clinically compatible case that is laboratory-confirmed **and is not known to have chronic hepatitis B.**
  - ***Chronic Hepatitis B, Confirmed:* A clinically compatible case that is laboratory-confirmed and has no prior diagnosis of chronic hepatitis B. Laboratory confirmation should have a serologic pattern consistent with chronic hepatitis B. History of acute hepatitis B may be useful, but not absolutely necessary.**
- *Required Comments:* Additional comments now required
  - Include the patient's hepatitis B immunization history. **Specify whether case is acute or chronic and if patient is showing signs and/or symptoms of hepatic disease.**

New Case Definition: Hepatitis B, Acute and Chronic

- Note that RESOLVED acute Hepatitis B remains NOT reportable under the new guidelines, even if the case has not been reported in the past.
  - Laboratory values seen in this type of case:
    - Hepatitis B surface antigen (HBsAg) negative.
    - Total antibody to Hepatitis B core antigen (anti-HBc) positive.
    - Antibody to hepatitis B surface antigen (anti-HBs) positive.
  - These individuals are immune and cannot spread the virus.

New Case Definition: Hepatitis C

- *Heading:* changed from Hepatitis C, Acute, to Hepatitis C.

- *Clinical description:* expanded to describe both acute and chronic hepatitis C and explain the transition from acute to chronic.

New Case Definition: Hepatitis C

- *Laboratory Criteria for diagnosis:* Minor expansion
  - **Anti-HCV positive by enzyme immunoassay (EIA) verified by at least one additional more specific assay (i.e. recombinant immunoblot assay);**
  - Anti-HCV screening test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay (e.g. ≥ 3.8 for EIA) and posted by CDC at: http://www.cdc.gov/hepatitis/HCV/LabTesting.htm
  - HCV recombinant immunoblot assay (RIBA) positive; or
  - Nucleic Acid Test (NAT) positive for HCV RNA.

New Case Definition: Hepatitis C

- *Case Classification:* Probable classification added; confirmed classification no longer requires r/o chronic hepatitis C.
  - ***Probable*: A case that is anti-HCV positive by EIA and has alanine aminotransferase (ALT) values above the upper limit of normal, but the anti-HCV EIA result has not been verified by an additional more specific assay or the signal to cut-off ratio is unknown.**
  - *Confirmed:* A case that is laboratory-confirmed.
- *Required Comments*: Added to the new guidelines
  - **Document whether the patient is experiencing symptoms of liver disease (nausea, abdominal pain, fatigue, jaundice, etc.).**
- *Additional Considerations*: Added to the new guidelines
  - **If the patient is suspected to have chronic hepatitis, verify the case has not been reported in the past, to prevent double reporting.**

Questions

- Contact your cognizant NEPMU
  - NEPMU2:
    - COMM: (757) 950-6600; DSN: (312) 377-6600
    - Email: NEPMU2NorfolkThreatAssessment@med.navy.mil
  - NEPMU5:
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    - Email: ThreatAssessment@med.navy.mil
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    - Email: NEPMU6ThreatAssessment@med.navy.mil
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